Future Concepts (FCT) Sub-team Meeting Summary

CDM
Collaborative
Decision Making

MITRE, Mclean VA

October 28-30, 2013

Day 1 AEFS

Doug Swol - Metron Aviation presented

-Airline ATC Coordinator assigns priority from 1-10 for each flight that is included in TBFM metering
- data utilizes FIXM - not sure when this will be deployed

Questions:
- should priorities be entered into Flight Object?
- will priorities go directly into TBFM?
- what will be required by airlines to input priorities?

- FCT Team feels that Traffic Management Specialists or Command Center Specialists should not be able to input priorities, should only be done by the flight operator.

- FCT feels AEFS could provide huge benefit if priority flights take less delays.

 - Operational Scenario was presented to FCT Team
- scenario depicts TBFM reserving a slot in the overhead stream so that internal departures would fit.

- Metron will do more analysis to determine when is the best time for towers to "call for release" so system can build a gap in the overhead stream
- call for release times may differ depending on how close the departure airport is to the freeze horizon of the arrival airport.

Day 2 UFPF

1. Background

1.1. The Future Concepts Team (FCT) was briefed on the draft operational requirements for UFPF by MITRE. The purpose of this briefing was to have the FCT evaluate the operational requirements and scenarios generated thus far. This is a continuation from the September 2013 FCT Meeting, which was briefed on the approach for developing UFPF operational requirements.

1.2. The FCT discussed UFPF on 29 October

1.3. An attendance list is provided in **Appendix A**.

2. Scope and Agenda

2.1. The objectives of the meeting were to get input on the preliminary UFP Operational Requirements and current UFP Scenarios

The agenda for the meeting is shown below.

UFPF Operational Requirements & Scenarios

- UFPF Intro & Recap
- Operational Requirements
- Operational Requirements Wrap Up

2.2. A list of documentation provided for the meeting will be sent out in email.

3. FCT Meeting

3.1. Introductions
3.1.1. The FCT, AJV-7, and MITRE UFPF team introduced themselves.

3.2. UFPF Background

    3.2.1. For the past 3-4 years, MITRE has been working the UFPF concept and the deliverable for December 2013 is a set of operational requirements and related scenarios.

    3.2.2. The goal was to mature operational requirements and scenarios and begin to have these products initially validated by the FCT.

3.3. UFPF Discussion

    3.3.1. During a description of the matured UFPF concept the FCT posed the question that if a flight operator files a flight plan what happens if the operator does not get their first choice? MITRE answered that all the inputs for UFPF are based on entry time and that at this point UFPF is not that dynamic yet.

    3.3.2. **FCT Question/Comment**: As an individual flight is there going to be a way to see all of the flights and their intent? We assume that there will need to be a level of network analysis for all of the flight intent information.

        MITRE Response: Vendors and airlines will have to come up with the ability to do this network analysis. The ability to do this would be useful.

    3.3.3. **FCT Question/Comment**: The key is getting the constraint data and bringing it all together and saying this/these are all the things a given flight will have to deal with. There are a lot of things that UFPF will be able to utilize What is shown will be driven by what the airline's Operations Manager or Dispatcher needs to see. It is all about seeing the individual flights but the airlines need to see an aggregate of all the individual impacts.

    3.3.4. **FCT Question/Comment & Internal FCT Conversation**: Will airlines be able to see their constraints? We also need to be able to go into system and add our own constraints example we do not want to fly here because of turbulence. Another thing that the airlines would like to see is the ability to send in trajectories that they will not accept on flights that are already airborne.

        Should also consider is this something that we would want to input into UFPF or Flight Object? How can UFPF also express airline preferences captured in the Flight Object?

        Are the routes pre-defined?

        For mountains we do but for ash dispersal or turbulence we do not these things are too dynamic. At some point the TOS and Flight Object constraints need to come together.

4. Conclusion

1.1. Summary and Conclusion

    1.1.1. Future steps

- The operational requirements need to be refined and further validated with operational groups. Due to time constraints the FCT did not get a chance to review UFPF operational scenarios. These scenarios will need operational input in the near future.

Day 3 AAtS

1. Background

1.1. The Future Concepts Team (FCT) was briefed on the results of the AAtS Bi-Directional Shortfall Analysis by Booze Allen Hamilton. The purpose of this briefing was to get input from the FCT on the results of the Shortfall Analysis. This is a continuation from the September 2013 FCT Meeting, in which BAH briefed the FCT on the methodology for how the shortfall analysis would be conducted.

1.2. The FCT discussed AAtS on 30 October

1.3. An attendance list is provided in **Appendix A**.

2. Scope and Agenda

2.1. The objective of the meeting was to get input from the FCT on the findings of the AAtS Bi-Directional Shortfall :

The agenda for the meeting is shown below.

UFPF Operational Requirements & Scenarios

- Background and Objectives
- Approach
- Findings

2.2. A list of documentation provided for the meeting will be sent out in email.

3. FCT Meeting

3.1. Introductions
3.1.1. The FCT, AJV-7 and Booze Allen Hamilton team introduced themselves.
3.3.5. The transitioning MITRE AAtS team introduced themselves.

3.2. AAtS Background
3.2.1. To date, there has been no structured assessment of bidirectional shortfalls and whether AAtS can address them.
3.2.2. Purpose of this activity is to document shortfalls. Methodology included doing a literature search of documents which reference AAtS and looking for potential shortfalls in the form of data elements and also conducting stakeholder interviews to identify potential shortfalls.

3.3. AAtS Discussion
3.3.1. **FCT Question/Comment**: Was it considered to go back to the stakeholders and ask them to rank perceived shortfalls? Might be good to go back to stakeholders and get their input on results.
BAH Response: Due to the lack of time this was not done.
3.3.2. **BAH Comment**: All the information is already out in the system via legacy systems. Issue is that the method for future is not yet established. Some information may be available, but not necessarily usable.
3.3.3. **FCT Questions/Comment**: Information coming to the FAA from the flight has security concerns. May be one of our biggest issues. Info is not coming straight from pilot to FAA, but from pilot to vendor to FAA. How do we validate the accuracy of this info? Information coming from flight deck needs to be vetted for operational usability. What is there connection? How is the connection validated? The biggest challenge will be to educate the community on what all the data means. Do we question the amount of information being pushed to community without education as to what it means?

> **BAH Response**: This will have to be explored in the technical portion of the concept

4. Conclusion
   ## 2.1. Summary and Conclusion
       2.1.1.Future steps: The results will need to be further validated with AJV-7 and direction is needed from AJV-7 management and NEXT GEN management as to what are the next steps.

Appendix A – Meeting Attendance

Meeting Participants

Day 1

Name	Organization	Email
Anthony Marino	FAA HQ	**Anthony.l.marino@faa.gov**
John Bernard	MITRE/CAASD	**Jbernard@mitre.org**
Sherrie Callen	NEXT Gen / FAA ANG C	**Sherrie.Callon@faa.gov**
Greg Hendricks	FAA ZTL	**Greg.Hendricks@faa.gov**
Brian Gwinn	Delta Airlines	**Bria.gwinn@delta.com**
Phil Santos	FedEx	**Psantos@fedex.com**
Giles Okeeffe	Metron	**Okeeffe@metronaviation.com**

Name	Organization	Email
Taryn Lewis	Metron	Lewis@metronaviation.com
Kapil Sheth	NASA	Kapil.Sheth@nasa.gov
Mike Schwab	NBAA	Mschwab@nbaa.org
Don Wolford	United Airlines	Don.wolford@united.com
Mark Klopfenstein	Metron	Klopfens@metronaviation.com
Patrick Somersall	FAA	Patrick.somersall@faa.gov
Steve Kamine	MITRE	Skamine@mitre.org
Douglas Swol	Metron	Swol@metronaviation.com
Dave Almeida	N/A	N/A
Alphonso McCode	FAA	Alphonso.McCode@faa.gov
Brian Letts	ERAU	N/A
Dave Gabello	N/A	N/A
Mary Ella Miller	N/A	N/A
Vitaly Gushva	N/A	N/A

Day 2 UFPF

Name	Organization	Email
Anthony Marino	FAA HQ	Anthony.l.marino@faa.gov
Brian Gwinn	Delta Airlines	Bria.gwinn@delta.com
Don Wolford	United Airlines	Don.wolford@united.com
Greg Gorlich	C90	Greg.s.gorlich@faa.gov
Greg Hendricks	FAA ZTL	Greg.hendricks@faa.gov
Patrick Somersall	FAA	Patrick.somersall@faa.gov
Phil Santos	FedEx	Psantos@fedex.com
Joseph Mionskowski	FAA AJV-72	Joseph.Mionskowski@faa.gov
Angel Morales	FAA AJV-73	Angel.Morales@faa.gov
Tehjal Topiwala	MITRE	Tejal@mitre.org

Name	Organization	Email
Steve Kamine	MITRE	Skamine@mitre.org
Trin Mitra	MITRE	
Sherry Janssen	MITRE	Shu@mitre.org
Vincent Peters	AJV-72	Vincent.ctr.Peters@faa.gov
Jenn Paull	AJV-73	Jenn.ctr.Paull@faa.gov

Day 3 AAtS

Name	Organization	Email
Anthony Marino	FAA HQ	Anthony.l.marino@faa.gov
Ron Foley	NATCA CDM	
Don Wolford	United Airlines	Don.wolford@united.com
Greg Gorlich	C90	Greg.s.gorlich@faa.gov
Greg Hendricks	FAA ZTL	Greg.hendricks@faa.gov
Patrick Somersall	FAA	Patrick.somersall@faa.gov
Phil Santos	FedEx	Psantos@fedex.com
Joseph Mionskowski	FAA AJV-72	Joseph.Mionskowski@faa.gov
Angel Morales	FAA AJV-73	Angel.Morales@faa.gov
Tehjal Topiwala	MITRE	Tejal@mitre.org
Steve Kamine	MITRE	Skamine@mitre.org
Vincent Peters	AJV-72	Vincent.ctr.Peters@faa.gov
Jenn Paull	AJV-73	Jenn.ctr.Paull@faa.gov
Jim Enders	BAH	Enders_James@bah.com
Christoph Wollersheim	BAH	Wollersheim_Christoph@bah.com
Matthew Plummer	BAH	Plummer_Matthew@bah.com
Tom Sicilia	BAH	Sicilia_Guy@bah.com